



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/590,403

08/23/2006

Dae-Ok Rhee

P/2292-110

8686

2352 7590 08/04/2009
OSTROLENK FABER GERB & SOFFEN
1180 AVENUE OF THE AMERICAS
NEW YORK, NY 100368403

EXAMINER

BRADFORD, CANDACE L

ART UNIT

PAPER NUMBER

3634

MAIL DATE

DELIVERY MODE

08/04/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/590,403	Applicant(s) RHEE, DAE-OK	
	Examiner CANDACE L. BRADFORD	Art Unit 3634	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 8/23/06 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>8/23/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

Claims 10-19 are objected to because of the following informalities: The claims are not numbered properly. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 3 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. It is unclear to the examiner how to determine if the internal member is formed to be 10-15 cm **enough** to protect the evacuee.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 1 recites the limitation "the ground" in line 7. There is insufficient antecedent basis for this limitation in the claim.

Claim 7 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite, specifically in line 4, it is unclear whether and opening or closing member is being claimed. Appropriate correction is required.

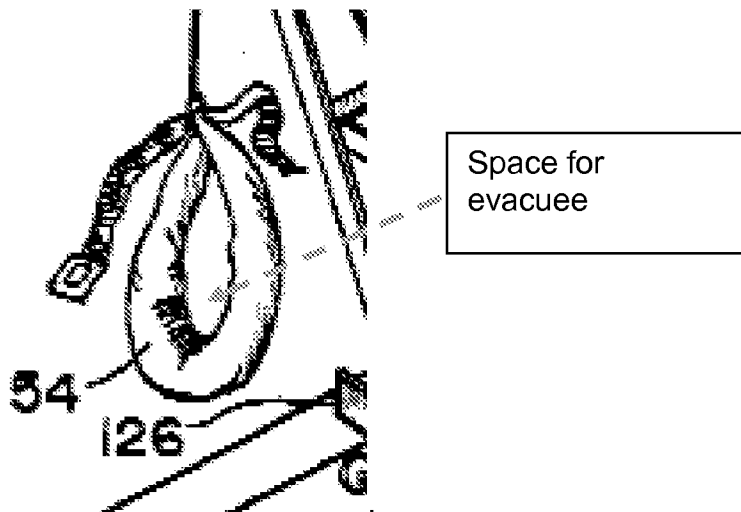
Claim 11 recites the limitation "the gas filling space" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 13 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite, specifically in line 3, it is unclear whether an opening or closing valve is being claimed. Appropriate correction is required.

Claim Rejections - 35 USC § 103

Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Orgeron (4616735) in view of Varner et. al. (4938435). Orgeron discloses an air tube 54, as recited column 5, lines 28 and 29, ~~Any device capable of carrying the human body can be attached to cable 36 in place of collar 54. For exam-~~ (the examiner has interpreted any device capable of carrying the human body as a air tube) in having an accommodation space, as best seen in Figure 9, for an evacuee and for protecting the evacuee from an external impact, a rope 36, connected to the air tube, having one end fixed to an evacuation place 114, and having a length long enough to reach the ground, but fails to disclose a controller. Varner et. al. teaches the utility of a controller 21, mounted in the air tube and connected to the rope 26, for descending the air tube in which the evacuee is accommodated to the ground at a safe speed, as best seen in Figure 1. The use of a controller is commonly used in the art to allow the evacuee to have manual control when evacuating from building or tree to the ground. Therefore, it would have been obvious to provide the evacuation device of Orgeron with a controller as taught by Varner so as to allow the evacuee to have manual control when evacuating from building or tree to the ground..

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Orgeron (4616735) in view of Varner et. al. (4938435). Orgeron further discloses the apparatus of claim 1, wherein the air tube comprise an external member formed as an oval shape, as best seen in Figure 8, and an internal member having a gas filling space between the external member and having a space therein for accommodating the evacuee



Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Orgeron (4616735) in view of Varner et. al. (4938435). Orgeron further discloses a width between an external member (outer surface of air tube 54) and the internal member (inner surface of air tube 54) enough to protect the evacuee accommodated in the air tube from an external impact.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Orgeron (4616735) in view of Varner et. al. (4938435) in view of Woodland (5597335). Orgeron in view of Varner et. al. as advanced about fails to disclose the air tube being made of a fireproof material. Woodland teaches the utility of an evacuation device having an airtube being made out of a fireproof material. Fire proof materials being used in

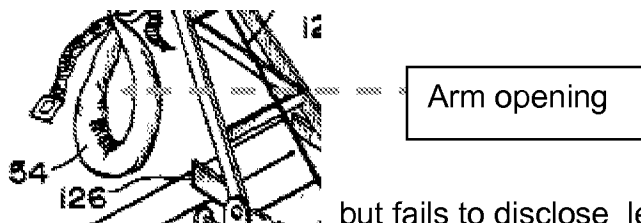
Art Unit: 3634

emergency escape devices are commonly used in the art to allow evacuation device and their components to still function and not catch fire when exposed to fire.

Therefore, it would have been obvious to one of ordinary skill in the art to provide the evacuation device of Orgeron in view of Varner et. al. a fire proof air tube as taught by Woodland so as to allow evacuation device and their components to still function and not catch fire when exposed to fire.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Orgeron (4616735) in view of Varner et. al. (4938435) in view of Elsholz (5718612). Orgeron in view of Varner et. al. fails to disclose a zipper. Elsholz teaches the utility of an entry provided with a zipper 74, for opening and closing the entry to the air tube 12, in a longitudinal direction, as recited in column 5, lines 3-9. The use of a zipper a fastener means is commonly used in the art to seal an apparatus. Therefore, it would have been obvious to one of ordinary skill in the art to provide the evacuation device of Orgeron in view of Varner et. al. with a zipper as taught by Elsholz so as to seal the apparatus.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Orgeron (4616735) in view of Varner et. al. (4938435) in view of Elsholz (5718612). Orgeron in view of Varner et. al. as advanced above discloses an arm opening



but fails to disclose leg openings and a zipper. Elsholz teaches the utility of a pair of leg openings 26, for allowing the evacuee's legs to extend outward are respectively formed at a front surface of the air tube, and a zipper 74 is

Art Unit: 3634

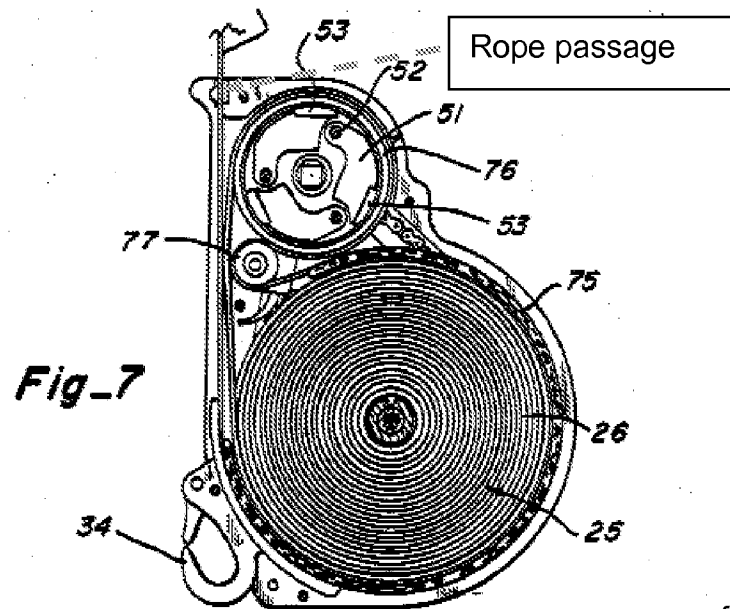
respectively provided at the arm openings and the leg openings 26. The utility of leg and arm openings are commonly used in emergency device to allow an evacuee to secure limbs in the device. Therefore, it would have been obvious to one of ordinary skill in the art to provide the evacuation device of Orgeron in view of Varner et. al. with opening for legs to extend through as taught by Elsholz so as to allow an evacuee to secure limbs in the device.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Orgeron (4616735) in view of Varner et. al. (4938435) in view of Elsholz (5718612). Orgeron in view of Varner et. al. as advanced above disclose a transparent window. Elsholz teaches the utility of a transparent window 39, for allowing the evacuee to see outside when the evacuee is accommodated in the air tube is formed at a front surface of the air tube, and the transparent window is provided with an opening/closing member 74 for opening and closing the transparent window, as best seen in Figure 1. The use of a transparent window is commonly used in the art to allow for a user to see outside of the apparatus. Therefore, it would have been obvious to one of ordinary skill in the art to provide the evacuation device of Orgeron in view of Varner et. al. with a transparent window as taught by Elsholz so as to allow for a user to see outside of the apparatus.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Orgeron (4616735) in view of Varner et. al. (4938435). Varner further discloses rope guiding pipes 77, as best seen in Figure 7, connected to the controller and for passing the rope are respectively mounted at upper and lower ends of the controller mounting portion.

Art Unit: 3634

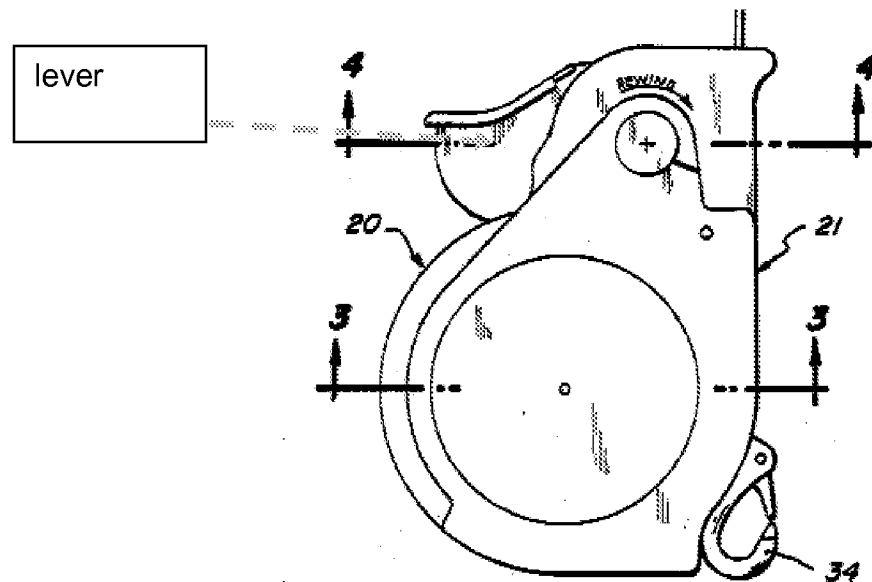
Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Orgeron (4616735) in view of Varner et. al. (4938435). Varner further discloses the apparatus of



claim 8, wherein a rope passage

for

passing the rope is respectively formed at upper and lower ends of the controller as



best seen in Figure 7, and a lever

adjusted by the evacuee inside is mounted at a front side of the controller.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Orgeron (4616735) in view of Varner et. al. (4938435). Varner further discloses the apparatus of claim 1, wherein the rope 26, has a length long enough to reach the ground from each floor, and a connection ring for fixing the rope to a fixed object is respectively mounted at both ends of the rope, as best seen in Figure 1.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Orgeron (4616735) in view of Varner et. al. (4938435) in further view of Wright (5820432). Orgeron in view of Varner as advanced above fails to disclose a gas tank. Wright teaches the utility of a gas tank 27, mounted at one side of the air tube 25, and for storing compression gas to be supplied to the gas filling space of the air tube. The use of a gas tubes are commonly known in the art to store gas and fill an air tube.

Art Unit: 3634

Therefore it would be obvious to one of ordinary skill in the art to provide the evacuation device of Orgeron in view of Varner et. al. with gas tank as taught by Wright so as to store gas and fill an air tube.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Orgeron (4616735) in view of Varner et. al. (4938435) in further view of Wright (5820432).

Wright further discloses the apparatus of claim 11, wherein the gas tank 27, is mounted at a tank mounting portion mounted at a floor/bottom surface of the accommodation space of the air tube 25.

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Orgeron (4616735) in view of Varner et. al. (4938435) and in further view of Wright (5820432).

Wright further discloses the apparatus of claim 11, wherein a gas outlet of the gas tank 27, is connected to the air tube by a gas supplying pipe, and the gas outlet is provided with an opening/closing valve 30, for opening and closing the gas outlet.

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Orgeron (4616735) in view of Varner et. al. (4938435) in further view of Kim (4971354). Orgeron in view of Varner as advanced above fails to an air bag. Kim teaches the utility of an air bag 14, in stalled in an inner surface 16. The use of air bags are commonly used in the art to deploy and protect an occupant of a apparatus from impact. Therefore, it would have been obvious to one of ordinary skill in the art to provide the evacuation device of Orgeron in view of Varner et. al. with an air bag as taught by Kim so as to deploy and protect an occupant of a apparatus from impact.

Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Orgeron (4616735) in view of Varner et. al. (4938435) in further view of Kim (4971354). Kim further discloses the air bag instantaneously inflating upon impact by use of detection portions/signals, as recited in column 3, lines 32-38

Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Orgeron (4616735) in view of Varner et. al. (4938435) and in further view of Mutaguchi et. al. (5960718). Orgeron in view of Varner et. al. as advanced above fails to disclose an air resistance portion. Mutaguchi teaches the utility of an air resistance portion 13, as recited in column 5, lines 32-39. The use of a an air resistance portion is commonly used in the art to prevent a gust of wind from flipping or overturning of apparatuses that are suspended in the air. Therefore, it would have been obvious to one of ordinary skill in the art to provide the evacuation device of Orgeron in view of Varner et. al. with an air resistance portion as taught by Mutaguchi et. al. so as to prevent a gust of wind from flipping or overturning the apparatus when it is suspended in the air.

Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Orgeron (4616735) in view of Varner et. al. (4938435) and in further view of Mutaguchi et. al. (5960718). Mutaguchi et. al. further discloses a propeller (not shown) affixed to supporting rod 12, rotatably mounted at the supporting axis, as recited in column 14, lines 54-60b.

Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Orgeron (4616735) in view of Varner et. al. (4938435) and in further view of Mutaguchi et. al. (5960718) in further view of Wright (5820432). Orgeron in view of Varner et. al. in view

Art Unit: 3634

of Mutaguchi et. al. fails to disclose air bars. Wright teaches the utility of air bars 27, 28, 35, at an upper side of the air tube 25, as best seen in Figure 2. The use of multiple air tubes is commonly used in the art to supply air to the air tube. Therefore, it would have been obvious to one of ordinary skill in the art to provide the evacuation device of Orgeron in view of Varner et. al. in view of Mutaguchi et. al. with multiple air bars as taught by Wright, so as to supply air to the air tube.

Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Orgeron (4616735) in view of Varner et. al. (4938435) and in further view of Pourchet (3156442). Orgeron in view of Varner et. al. fails to disclose impact absorbing protrusion. Pourchet teaches the utility of buffering protrusions 6,7 for absorbing an impact, as recited in column 1, line 24 when the air tube collides with the ground or a wall surface at an outer circumferential surface thereof. The use a device to absorb the shock of a impact are commonly used in the art to protect the user of an evacuation device from injury caused by the impact of hitting a wall or the ground. Therefore, it would have been obvious to one of ordinary skill in the art to provide the emergency apparatus of Orgeron in view of Varner et. al. with impact absorbing protrusions as taught by Pourchet so as to protect the user of an emergency device from injury caused by the impact of hitting a wall or the ground.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CANDACE L. BRADFORD whose telephone number is (571)272-8967. The examiner can normally be reached on 9am until 5pm.

Art Unit: 3634

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Katherine Mitchell can be reached on (571) 272-7069. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Candace L. Bradford
Patent Examiner
Art Unit 3634
July 31, 2009

/Alvin C. Chin-Shue/
Primary Examiner, Art Unit 3634